

# ONKYO SERVICE MANUAL

## Integrated Stereo Amplifier MODEL A-RV410

UD	120V AC, 60Hz
UP	230V AC, 50Hz
UQ	240V AC, 50Hz
UW	120V/220V AC, 50Hz/60Hz

### SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  $\Delta$  ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PARTS NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.



# SPECIFICATIONS

**Power Output:** USA & Canadian models:  
**110 watts per channel, min RMS, at 8 ohms, both channels  
 driven from 20 Hz to 20 kHz, with no more than 0.08% THD.**  
 Other than USA & Canadian models:  
 Continuous output: 110 W 4  $\Omega$  DIN  
 80 W 8  $\Omega$  DIN

Total Harmonic Distortion 0.08% at rated power  
 IM Distortion 0.08% at rated power  
 Damping Factor: 50 at 8 ohms  
 Frequency and Response: 15 - 30,000 Hz  $\pm$ 1 dB  
 Sensitivity and Impedance Phono: 2.5 mV/50 kohms  
 Tuner/CD/VCR-1, VDP: 150 mV/50 kohms  
 Tape/VCR-2 Play: 150 mV/50 kohms  
 Tape/VCR-2 Rec: 150 mV/2.2 kohms  
 Phono Overload: 120 mV RMS. at 1 kHz, 0.5% THD  
 Bass Control:  $\pm$ 10 dB at 100 Hz  
 Treble Control:  $\pm$ 10 dB at 10,000 Hz  
 Signal to Noise Ratio (IHF-A): Phono: 80 dB (5 mV input)  
 CD/Tape: 100 dB

## General

Power Supply: USA & Canadian models: AC 120 V, 60 Hz  
 European models: AC 230 V, 50 Hz  
 UK & Australian models: AC 240 V, 50 Hz  
 Worldwide models: 220 and 120 V switchable, 50/60 Hz  
 Dimensions (W)  $\times$  (H)  $\times$  (D): 455  $\times$  150  $\times$  331 mm  
 17-15/16"  $\times$  5-7/8"  $\times$  13-1/16"  
 Weight: 9.8 kg, 21.6 lbs.

Specifications and features are subject to change without notice.

## PRECAUTIONS

### 1. Replacing the fuses



This symbol located near the fuse indicates that the fuse used is fast operating type. For continued protection against fire hazard, replace with same type fuse. For fuse rating, refer to the marking adjacent to the symbol.



Ce symbole indique que le fusible utilise est a rapide. Pour une protection permanente, n'utiliser que des fusibles de meme type. Ce dernier est indique la qu le present symbol est appose.

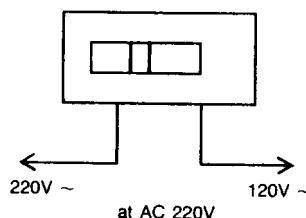
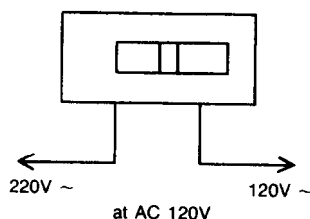
CIRCUIT NO.	PART NO.	DESCRIPTION
F901	252052	7A ST-6
F902	252076 or 252076CC	3.15A-SE-EAK or 3.15A-SE-EAK Primary fuse (230V, 240V, 120V/220V model)
F903	252075 or 252075CC	2.5A-SE-EAK or 2.5A-SE-EAK, Primary fuse (230V model)

### 2. Insulation resistance measurement (Only U.S.A. model)

Connect the insulating-resistance tester between the plug of power supply cable and the terminal GND on the back panell  
Specifications; More than 10 MΩ at 500V.

### 3. Voltage selector (rear panel)

Worldwide models are equipped with a voltage selector to conform with local power supplies. Be sure to set this switch to match the voltage of the power supply in your area before plugging in the unit. Voltage is changed by sliding the groove in the switch with a screwdriver to the right or left. Confirm that the switch has been moved all the way to the right or left before plugging in the unit. Models without a voltage selector can only be used in areas where the power supply is the same as that of the unit.



## ADJUSTMENT PROCEDURES

### Adjustments and Checking the Protection Circuitry

#### 1. Preparations

- 1) Place the unit on the workbench. (There should be about 15 mm of space between the base plate of the unit and the work surface.)
- 2) Set up the unit as follows.
  - (1) No load
  - (2) No signal
  - (3) Volume turned all the way down
  - (4) Speaker switch OFF
  - (5) Power switch OFF

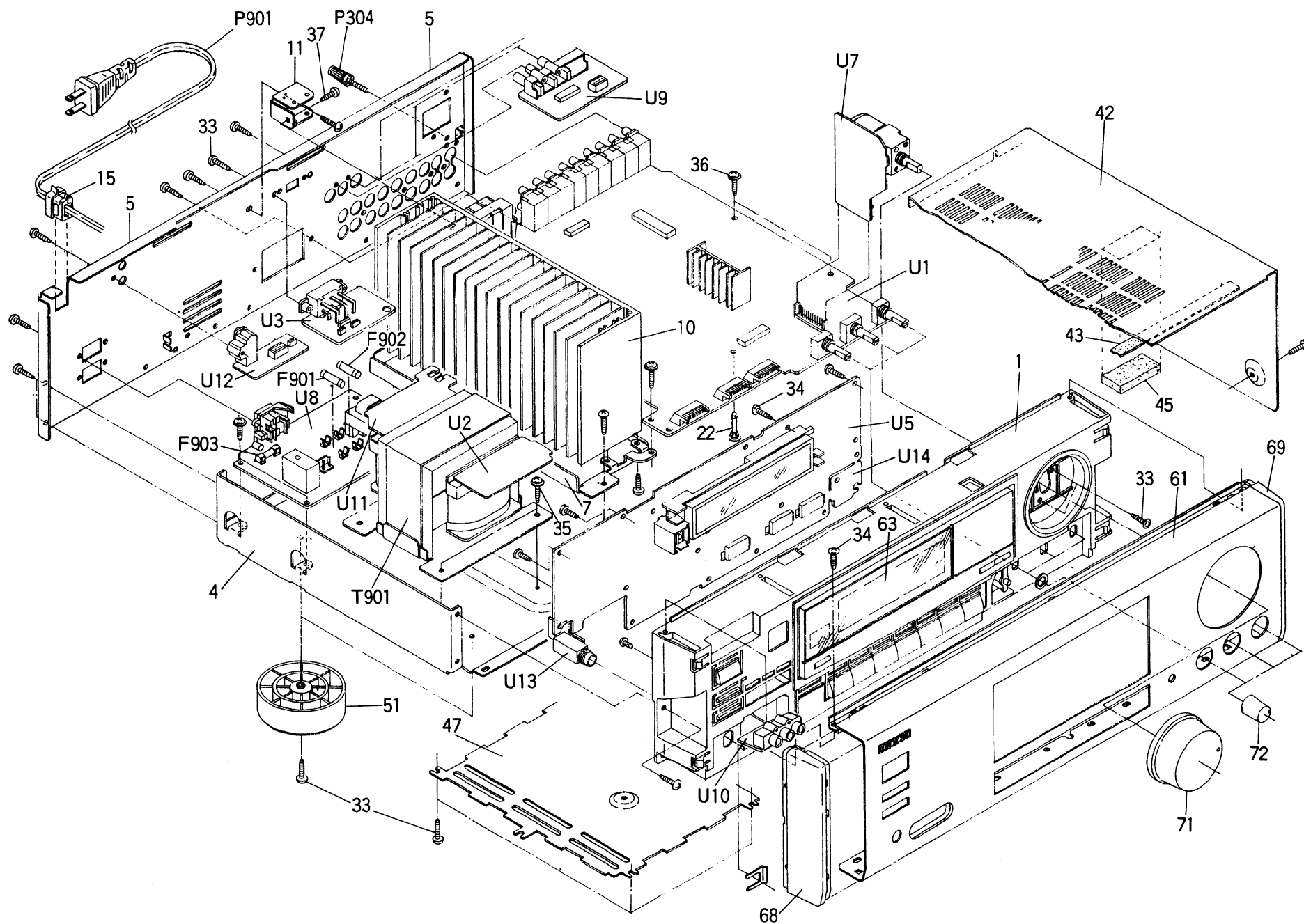
Note) Check the following points before making adjustments

- (1) The power switch should be OFF.
- (2) The interior of the unit should not be warm.

#### 2. Idling current adjustment

- 1) Turn the power switch ON and allow the unit to warm up for about 10 minutes.
  - (1) Adjust R537 (R538) so that the voltage at test point P521 (P522) on the NAAR-4892-2 circuit board is  $7.5\text{mV} \pm 0.5\text{mV}$

# CHASSIS-EXPLODED VIEW



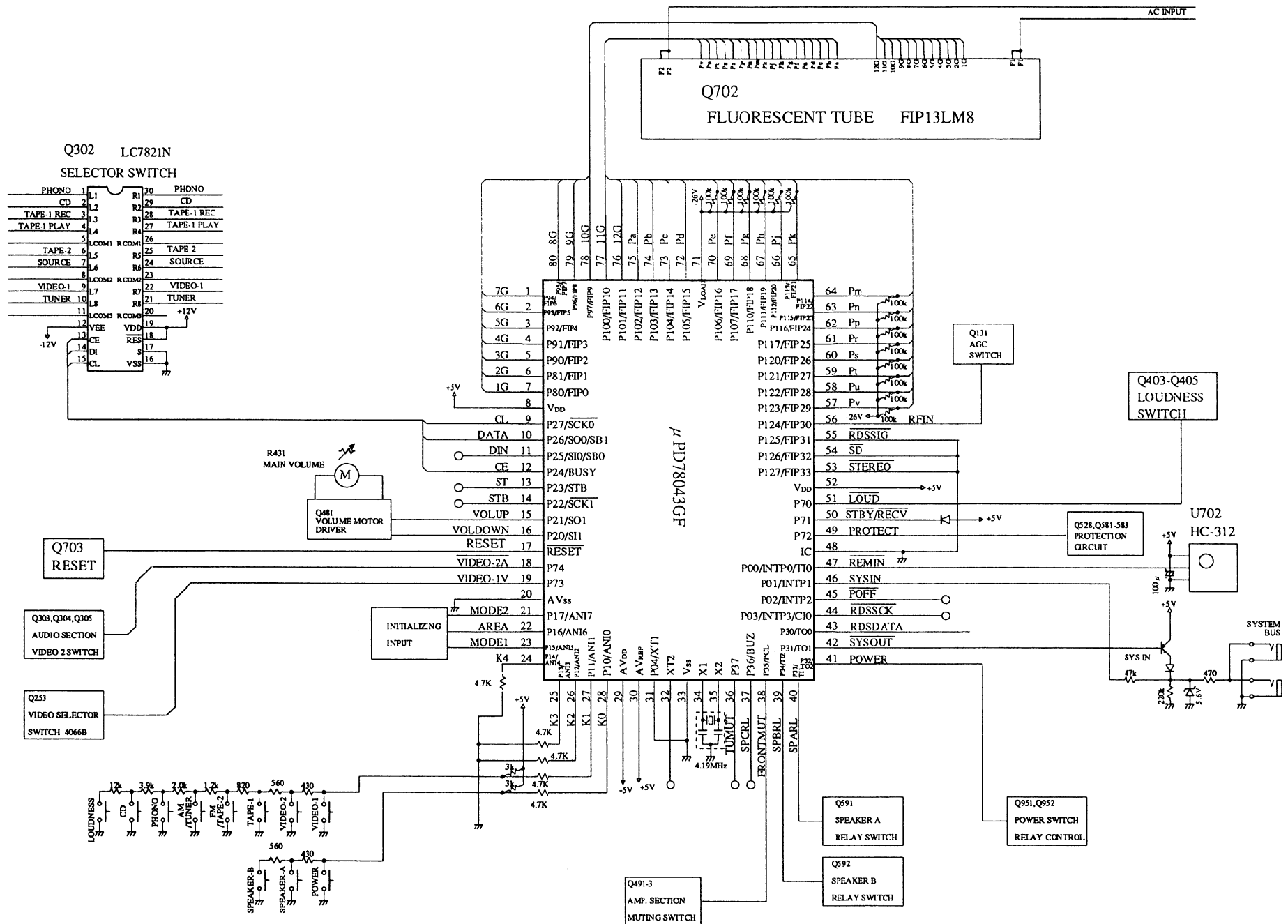
# PARTS LIST

REF. NO.	PART NO.	DESCRIPTION
1	27110793Y	Front bracket
3	28175209AY	Isolating plate
4	27100278AY	Chassis
5	27121821AY	Rear panel <D>
	27121822AY	Rear panel <P>
	27121824AY	Rear panel <W>
6	27267838Y	Guide, Video
7	27130727Y	Bracket H
8	27270212Y	Spacer <W>
10	27160330AY	Radiator
11	27141623Y	Retainer H
15	27300750	Bushing cord
22	27190524	KGLS-14RF,Holder
32	801433	3SMS8W.SW+14B(BC),Special screw
33	834430088	3TTS+8B(BC),Self-tapping screw
34	833430080	3TTP+8P(BC),Self-tapping screw
35	830440089	4TTC+8B(BC),Self-tapping screw
36	831130088	3TTW+8B,Self-tapping screw
37	834430108	3TTS+10B(BC),Self-tapping screw
42	28184476BY	Top cover
46	28140546	Cushion
47	27170302Y	Bottom panel
51	27175251AY	Leg
61	1A470121Y	Front panel ass'y
62	8910301	CS-3, Ring CS
63	2819167AY	Clear plate
64	28198782Y	Facet
67	28135199	Badge
68	28125255A	End cap L
69	28125256A	End cap R
71	28324933B	Knob VOLUME
72	28324845B	Knob LEVEL
F901	252166Y	⚠ 6.3A-UL/T237,Fuse
F902	252076	⚠ 3.15A-SE-EAK,Fuse <P>,<W>
F903	252075	⚠ 2.5A-SE-EAK <P>
P304	25060044	Terminal
P901	253192HIT	⚠ AS-UC-6#18,Power supply cord <D>
	253193HIT	⚠ AS-CEE <P>
	253172 or	⚠ AS-CEE-2,

REF. NO.	PART NO.	DESCRIPTION
	253092-1A	Power supply cord <W>
Q521,Q522	2201653,	2SC3856-O,
	2201654 or	2SC3856-Y or
	2201655	2SC3856-P,Transistors
Q523,Q524	2201663,	2SA1492-O,
	2201664 or	2SA1492-Y or
	2201665	2SA1492-P,Transistors
T901	2300979AY	⚠ NPT-1198D,Power transformer <D>
	2300980Y	⚠ NPT-1195P,Power transformer <P>
	2300981Y	⚠ NPT-1195DG,Power transformer <W>
U1	1A470592-2Y	NAAR-4892-2,Main circuit pc board ass'y <D>
	1A470592-2AY	NAAR-4892-2A,Main circuit pc board ass'y <P>,<W>
U2	1A470593-2Y	NAETC-4893-2,Power supply circuit pc board ass'y <D>
	1A470593-2AY	NAETC-4893-2A,Power supply circuit pc board ass'y <P>,<W>
U3	1A470594-2Y	NASW-4894-2,Switch pc board ass'y <D>
U5	1A470597-2Y	NADIS-4897-2,Display circuit pc board ass'y <D>
	1A470597-2BY	NADIS-4897-2B,Display circuit pc board ass'y <W>
U7	1A470599-2Y	NAAF-4899-2,Volume circuit pc board ass'y
U8	1A470500-2Y	NAPS-4900-2,Power supply circuit pc board ass'y <D>
	1A470500-2AY	NAPS-4900-2A,Power supply circuit pc board ass'y <P>
	1A470500-2BY	NAPS-4900-2B,Power supply circuit pc board ass'y <W>
U9	1A470501-2Y	NAETC-4901-2,Video circuit pc board ass'y
U10	1A470502-2Y	NAETC-4902-2,Video terminal pc board ass'y
	1A470502-2AY	NAETC-4902-2A,Video terminal pc board ass'y <P>,<W>
U11	1A470503-2Y	NAETC-4903-2,Primary circuit pc board ass'y
U12	1A470504-2Y	NAETC-4904-2,RI terminal pc board ass'y <D>
	1A470504-2BY	NAETC-4904-2B,RI terminal pc board ass'y <W>
U13	1A470505-2Y	NAETC-4905-2,Headphone terminal pc board ass'y
U14	1A470506-2Y	NASW-4906-2,Loudness switch pc board ass'y

NOTE:  
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WITH PART NUMBER SPECIFIED.

## MICROPROCESSOR CONNECTION DIAGRAM



# TERMINAL DESCRIPTIONS

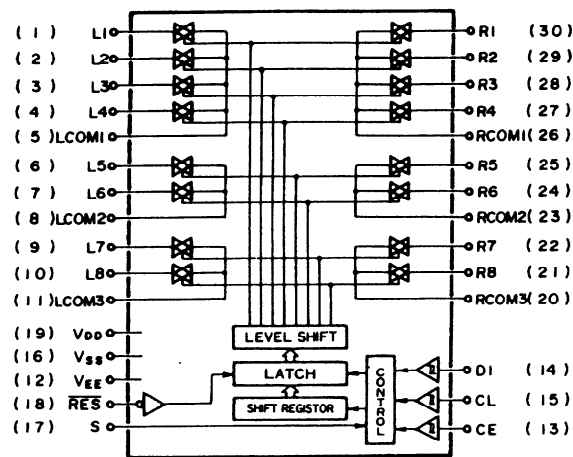
Pin No.	Function	Description
1~7	7G~1G	Grid output terminals Active"H"
8	VDD	Positive power supply terminal (+5V)
9	CL	Output terminal for CL-terminal of LC7821N , CK-terminal of TC9162N , CL-terminal of LC72140 , CK-terminal of TC9213P and SCK-terminal of M65830P
10	DATA	Output terminal for DI-terminal of LC7821N , DATA-terminal of TC9162N , DI-terminal of LC72140 , DATA-terminal of TC9213P and DATA-terminal of M65830P
11	DIN	Input terminal for DO-terminal of LC72140
12	CE	Output terminal for CE-terminal of LC7821N and LC72140
13	STB	Output terminal for ST-terminal of TC9162N , STB-terminal of TC9213P and REQ-terminal of M65830P.
14	RDSSCK	Input terminal for CLK OUT-terminal of RDS decoder $\mu$ PC1346CS
15	VOLUP	Volume control output terminal
16	VOLDOWN	Refer to table 1
17	RESET	Input terminal for System Reset
18	VIDEO-2A	Output terminal for changing Audio Signal of VIDEO-2
19	VIDEO-1V	Output terminal for changing Visual Signal of VIDEO-1
20	AVSS	Grand terminal for A/D converter
21	MODE2	Initial setting input terminal for changing AM stereo function
22	AREA	Initial setting(BAND0,BAND1,AM10K) input terminal for changing frequency range
23	MODE	Initial setting input terminal for surround function
24	K4	Key input terminal.
25	K3	Key input terminal.
26	K2	Key input terminal.
27	K1	Key input terminal.
28	K0	Key input terminal.
29	AVDD	Analog positive power terminal (+5V) for A/D converter
30	AVREF	Reference voltage input terminal for A/D converter
31	XT1	Crystal connection terminal for resonator of sub system clock
32	XT2	Not used.
33	VSS	Ground Terminal
34	X1	Connect the ceramic resonator 4.19MHz.
35	X2	Resonator connection terminal for resonator of main system clock
36	TUMUT	Muting output terminal for tuner
37	SURMUT	Muting output terminal for center and rear amplifiers
38	FRONTMUT	Muting output terminal for front amplifier
39	SPBRL	Control output terminal for speaker relay B

Pin No.	Function	Description
40	SPARL	Control output terminal for speaker relay A
41	POWER	Power source control output terminal
42	SYSOUT	System code output terminal
43	RDSDATA	Input terminal for DATA OUT-terminal of $\mu$ PC1346CS
44	RDSSCK	Input terminal for SCK-terminal of $\mu$ PC1346CS
45	POFF	Detection input terminal for power failure
46	SYSIN	System code input terminal
47	REMIN	Input terminal for signal of remote control
48	IC	Internal connection terminal
49	PROTECT	Detection input terminal for movement of protection circuit
50	STBY/RECV	STAND-BY and RECEIVED indication output terminal
51	LOUD	Control output terminal for Loudness switch
52	VDD	Positive power supply terminal (+5V)
53	STEREO	Detection input terminal for stereo broadcasting
54	SD	Detection input terminal for radio station
55	RDSSIG	Detection input terminal for RDS broadcasting
56	RFIN	RF MODE input terminal
57~70	Pv~Pe	Segment output terminals Active"H"
71	VLOAD	Pull-down resistor connection terminal for control and driver of FIP
72~75	Pd~Pa	Segment output terminals Active"H"
76~80	12G~8G	Grid output terminals Active"H"

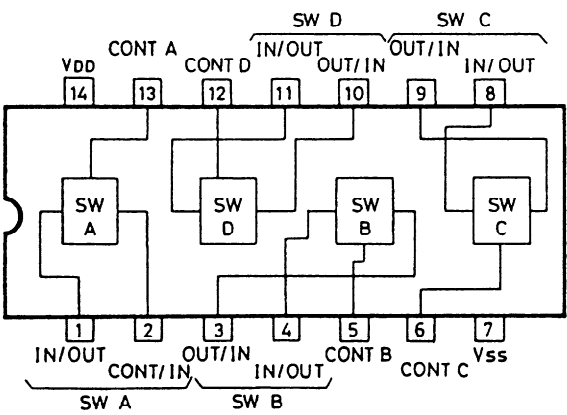
Movement	Outputs	
	VOLUP(#15)	VOLDOWN(#16)
Stop	H	H
UP	H	L
DOWN	L	H
POWER OFF	L	L

# IC BLOCK DIAGRAM

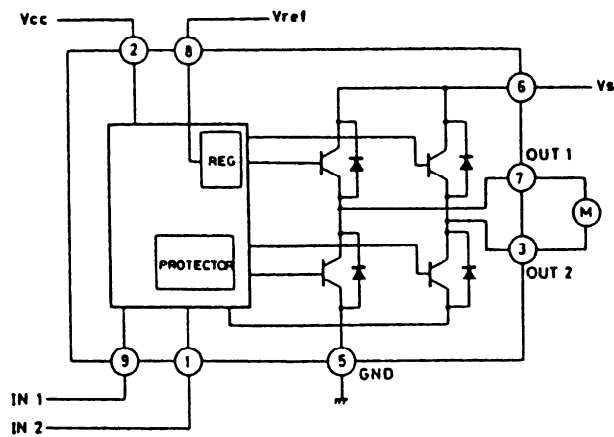
LC7821N (Analog switch)



LC4966 (Switch)  
4066B



TA7291S (Volume driver)

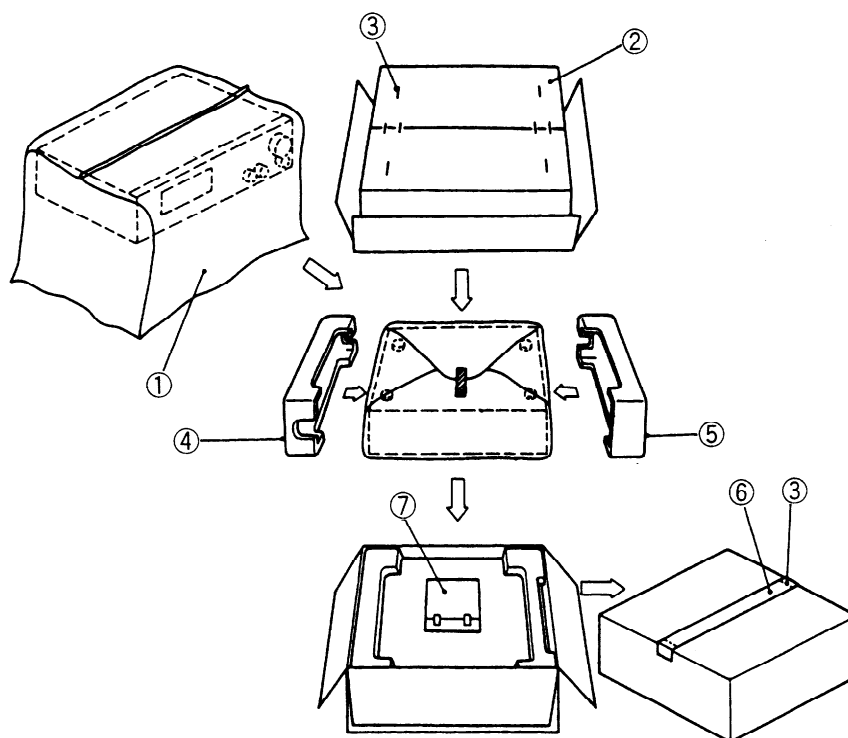


INPUT		OUTPUT		MODE
IN 1	IN 2	OUT 1	OUT 2	
0	0	$\infty$	$\infty$	STOP
1	0	H	L	CW/CCW
0	1	L	H	CCW/CW
1	1	L	L	BRAKE

CCW: Counter clockwise direction  
CW: Clockwise direction



# PACKING VIEW



REF.NO.	PART NO.	DESCRIPTION
1	29100034-1Y	Styrene bag for unit
2	29052694Y	Carton box
3	282320	Ten staples
4	29091652BY	Pad R
5	29091651BY	Pad L
6	29110071	PP tape
7	Accessory bag ass'y	
	2010200	Cord ass'y
	3010054	UM-3,Two batteries
	25055018	CV-K-1,Conversion plug <W>
	24140261Y	RC-261S,Remote control transmitter
	29100097-1Y	Styrene bag for accessory
	29100094B	Styrene bag for accessory <V>
	29341905BY	Instruction manual
	29341908BY	Instruction manual<P>
	29341907Y	Instruction manual <C/W>
	29355211Y	Instruction Sheet
	29355133AY	Instruction Sheet<V>
	29358002J	Service station list <N>
	29361679Y	Label UPC <N>
	29365019A	Warranty card <N>
	29365020H	Warranty card <V>

NOTE: <D>:120V model only  
 <W>:Worldwide model only  
 <N>:USA model only  
 <C>:Canadian model only  
 <P> 220V model only  
 <V> Germany model only

# PRINTED CIRCUIT BOARD PARTS LIST

## MAIN CIRCUIT PC BOARD (NAAR-4892-2/2A)

CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs			Diodes	
Q301	222502	NJM4558D-X	D505,D506	223205	1SS270A
Q302	22240280	LC7821N	D571,D572	223163	1SS133 or
Q303,Q403	22240025	LC4966	D930,D931	223222	WG713A
Q401,Q402	22240247	BA15218N	D591,D592		
Q481	22240239	TA7291S	D911	22380038	RBV602
Q571	22240752	NJM4556L	D921-D924	22380035 or	GP104003E or
Q921	222780125NEC	78M12HF	D926-D928	22380046	AM01Z
Q922	222790125	79M12HF	D929	224453304	MTZ33D
Q923	222780565JRC	78M56		Coils	
	Transistors		L501,L502	231176S	S-1.3C
Q304,Q404	2213510 or	DTA114ES or		Capacitors	
Q493	2214350	RN2202	C303,C304	354741009	10 $\mu$ F,16V,Elect.
Q305,Q405	221282 or	DTC144ES or	C313-C316		
Q572	2213560	RN1204	C401,C402		
Q491,Q492	2213631 or	RN1241-A or	C407-C412		
Q575,Q576	2213632	RN1241-B	C491,C931		
Q501-Q504	2211732 or	2SC1845-F or	C501,C502		
Q505,Q506	2213354 or	2SA933S-R or	C571-C573		
	2212125	2SA1048-GR	C927,C928		
Q509,Q510	2213284 or	2SC1740S-R	C936,C937		
	2212115	2SC2458-GR	C307,C308	354721019	100 $\mu$ F,6.3V,Elect.
Q507,Q508	2211733	2SC1845-E	C481,C581		
Q511,Q512	2211353 or	2SA949-O or	C309,C310	374726224	6200pF $\pm$ 5%,50V,Plastic
	2211354	2SA949-Y	C311,C312	374721824	1800pF $\pm$ 5%,50V,Plastic
Q513,Q514	2211633 or	2SC2229-O or	C391,C392	374721015	100pF $\pm$ 10%,50V,Plastic
	2211634	2SC2229-Y	C413,C414	374721534	0.015 $\mu$ F $\pm$ 5%,50V,Plastic
Q515,Q516	2213284 or	2SC1740S-R or	C417,C418		
	2212115	2SC2458-GR	C421,C422	374724734	0.047 $\mu$ F $\pm$ 5%,50V,Plastic
Q517,Q518	2202034 or	2SD1763A-D or	C527,C528		
	2202035	2SD1763A-E	C503,C504	374721015	100pF $\pm$ 10%,50V,Plastic
Q519,Q520	2202024 or	2SB1186A-D or	C507,C508	354742219	220 $\mu$ F,16V,Elect.
	2202025	2SB1186A-E	C513,C514	354722219	220 $\mu$ F,6.3V,Elect.
Q525,Q526	2211633 or	2SC2229-O or	C521,C522	354772209	22 $\mu$ F,63V,Elect.
	2211634	2SC2229-Y <D>	C539,C540	354741019	100 $\mu$ F,16V,Elect.
Q525,Q526	2211732 or	2SC1845-F or	C567,C568	354700109	1 $\mu$ F,160V,Elect.
	2211733	2SC1845-E <W>	C570	354791019	100 $\mu$ F,100V,Elect. <D>
Q573	2211163 or	2SC2120-O or		354771019	100 $\mu$ F,63V,Elect. <W>
	2211164	2SC2120-Y	C915,C916	3504237	10000 $\mu$ F,71V,Elect. <D>
Q581,Q582	2211732 or	2SC1845-F or	C923	354753329	2200 $\mu$ F,25V,Elect.
	2211733	2SC1845-E	C924	354764719	470 $\mu$ F,35V,Elect.
Q583	2211792 or	2SA992-F or	C932	354761019	100 $\mu$ F,35V,Elect.
	2211793	2SA992-E	C933	354781019	100 $\mu$ F,50V,Elect.
Q591,Q592	2213640 or	DTC123JS or			
	2214660	RN1205			
Q924	2211455	2SA1015-GR			

**CAUTION:** Replacement for transistor of mark \*, if necessary, must be made from the same beta group (H FE ) as the original type.

**NOTE:** THE COMPONENTS IDENTIFIED BY MARK  $\Delta$  ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

CIRCUIT NO.	PART NO.	DESCRIPTION
	Resistors	
R393	5104225	N11RGLC250KWT22Z, Balance
R409	5104230	N14RLC100KWT22Z, Bass
R415	5104230	N14RLC100KWT22Z, Treble
R533, R534	443522704	27 ohm, 1/2W, Metal oxide
R535, R536	443521014	100 ohm, 1/2W, Metal oxide
R537, R538	5210259	N06HR 2KBC, Trim
R543, R544	443523314	330 ohm, 1/2W, Metal oxide
R545, R546	4000132Y	0.22 ohm $\times$ 2.5W + 5W, Metal plate
R551, R552	453630824	8.2 ohm, 1W, Metal
R553, R554	443523924	3.9 kohm, 1/2W, Metal oxide
R567, R568	453530224	2.2 ohm, 1/2W, Metal
R923		
R570	443522204	22 ohm, 1/2W, Metal oxide
R927, R930		
R924	453530824	8.2 ohm, 1/2W, Metal
R933	443524704	47 ohm, 1/2W, Metal oxide
	Relaies	
RL591, RL592	25065339	NRL-2P5A-DC24-046
	Plugs	
P321	25055133	NPLG-3P117
P613a	25055652	NPLG-14P608
	Terminals	
P301-P303	25045300	NPJ-6PDBL-159
P501	25060158	NTM-8PDMN084
	Sockets	
P711a-P713a	25051046	NSCT-10P833
JL261a	25051087	NSCT-3P874
JL912a, JL913a	25051109	NSCT-5P896

**POWER SUPPLY CIRCUIT PC BOARD (NAETC-4893-2/2A)**

CIRCUIT NO.	PART NO.	DESCRIPTION
R921, R922	453534794	0.47 ohm, 1/2W, Metal resistors

**SWITCH PC BOARD (NASW-4894-2)**

CIRCUIT NO.	PART NO.	DESCRIPTION
S911	25065437	NSS-22157P, Slide switch

**DISPLAY CIRCUIT PC BOARD (NADIS-4897-2/2A)**

CIRCUIT NO.	PART NO.	DESCRIPTION
	IC	
Q701	22240773Y	$\mu$ PD78042GF-064
	FL tube	
Q702	212127Y	FIP13LM8
	Remote control sensor	
U702	24130010Y	HC-312
	Transistors	
Q703	221282 or	DTC144ES or
	2213560	RN1204
Q704-Q706	2213284 or	2SC1740S-R or
	2212115	2SC2458-GR
Q707	2213510 or	DTA114ES or
	2214350	RN2202
	Diodes	
D701, D702	223205 or	1SS270A or
D704, D705	223163	1SS133
D708	223205 or	1SS270A or
D710-D712	223163	1SS133
D703	224450913	MTZ9.1C
D706, D707	224450562	MTZ5.6B
D709	225291D	SEL4910D-D, LED
	Resonator	
X701	3010163	CST4.19MGW, Crystal
	Coils	
L701-L703	233454K220	NCH-1452 220K
	Capacitors	
C701	3000075Y	0.047F, 5.5V, Super
C702	375524744	0.47 $\mu$ F $\pm$ 5%, 50V, Plastic
C703, C709	354721019	100 $\mu$ F, 6.3V, Elect.
C711		
C704	354780109	1 $\mu$ F, 50V, Elect.
C706, C707		
	Switches	
S701-S703	25035652	NPS-111-S604
S707-S713		
	Plugs	
P711b-P713b	25055659	NPLG-10P615
	Holder	
	27190937Y	FL tube
	Retainer	
	27141575Y	RI terminal

**VOLUME CIRCUIT PC BOARD (NAAF-4899-2)**

CIRCUIT NO.	PART NO.	DESCRIPTION
R431	5104334Y	N16RGL100KBT25F, Variable, Volume
P613b	25050985	NSCT-12P772, Socket

## POWER SUPPLY CIRCUIT PC BOARD (NAPR-4900-2/2B)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Transistors	
Q951	221282 or 2213560	DTC144ES or RN1204
Q952	2213650 or 2214680	DTD113ZS or RN1226
	Diodes	
D951-D954	22380035 or 22380046	GP104003E or AM01Z
D955	223222, 223205 or 223163	WG713A, 1SS270A or 1SS133
	Capacitors	
C901	3500065A	△ DE7150FZ103PAC400V/125V
C952	354742219	220 $\mu$ F,16V,Elect.
	Resistors	
R951	453530824	8.2 ohm,1/2W,Metal
	Power transformer	
T902	2300670	△ NPT-1111D <D>
	2300672	△ NPT-1111DG <W>
	Relay	
RL901	25065483	△ NRL-1P5A-DC-12-084

CIRCUIT NO.	PART NO.	DESCRIPTION
	Fuses	
F901	252166Y	△ 6.3A-UL/T-237
F902	252076	△ 3.15A-SE-EAK <W>
	Fuseholders	
F901a	25050065	△ YSH403T
F902a	25050065	△ YSH403T <W>
	Plug	
P901a	25055675	NPLG-2P631 <D>
	Socket	
P902	25051124	△ NSCT-6P911,AC outlet <D>
	25051125	△ NSCT-4P912,AC outlet <W>
	Switch	
S901	25065437	△ NSS-22157P,Voltage selector <W>

## VIDEO CIRCUIT PC BOARD (NAETC-4901-2)

CIRCUIT NO.	PART NO.	DESCRIPTION
	IC	
Q253	222840661	4066B
	Transistors	
Q251,Q252	2213284 or 2212115	2SC1740S-R or 2SC2458-GR
	Diode	
D251	223222, 223205 or 223163	WG713A, 1SS270A or 1SS133
	Capacitors	
C251,C252	354721019	100 $\mu$ F,6.3V,Elect.
C257		
C255,C256	354724719	470 $\mu$ F,6.3V,Elect.
C259	354741019	100 $\mu$ F,16V,Elect.
	Terminal	
P251	25045299	NPJ-3PDYE158
P261b	25055132Y	NPLG-2P116

## RI TERMINAL PC BOARD(NAETC-4904-2)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Terminal	
P961	25045330	NPJ-2PDBL184

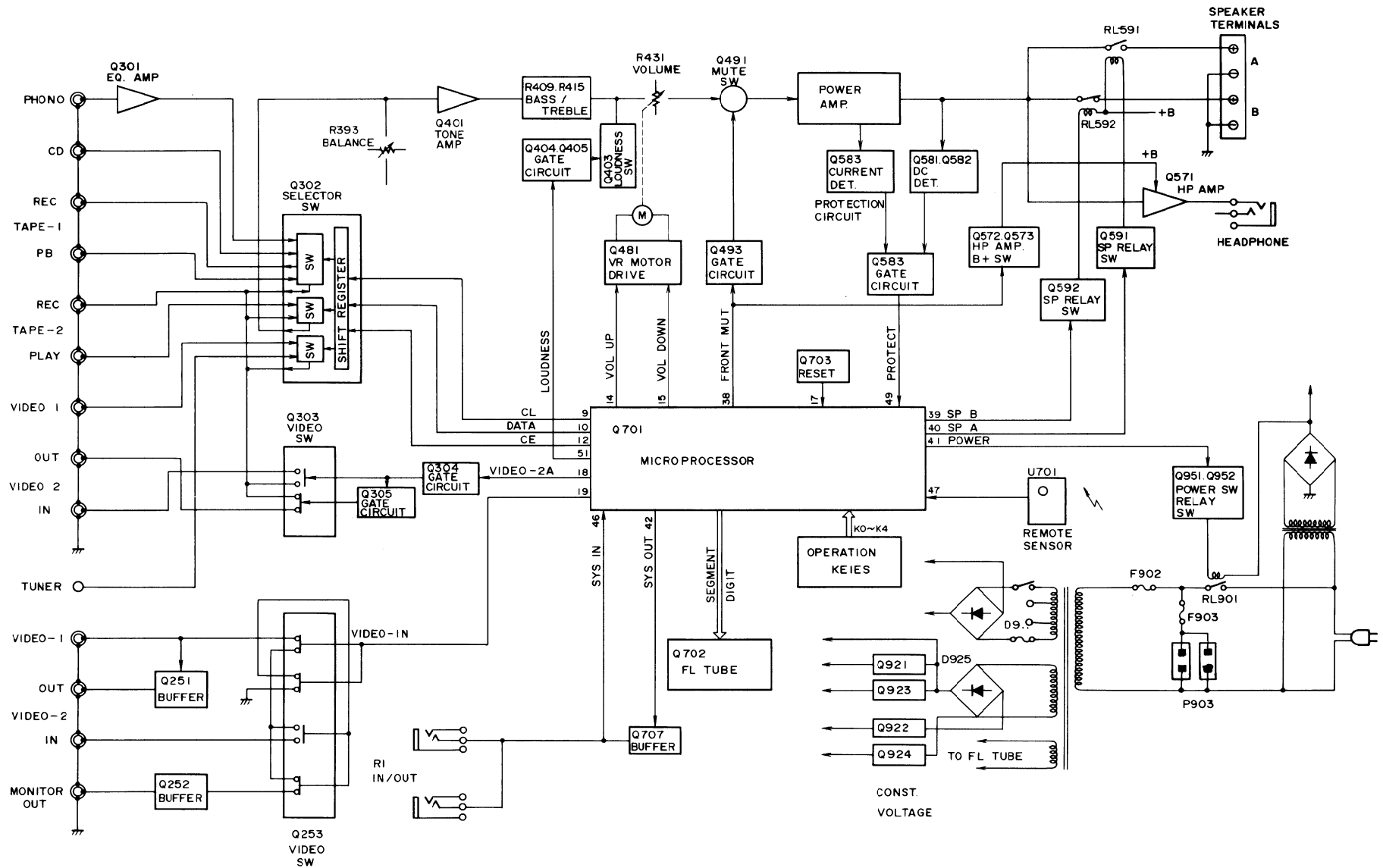
## HEADPHONE TERMINAL PC BOARD(NASW-4905-2)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Terminal	
P503	25045255	YKB21-5009

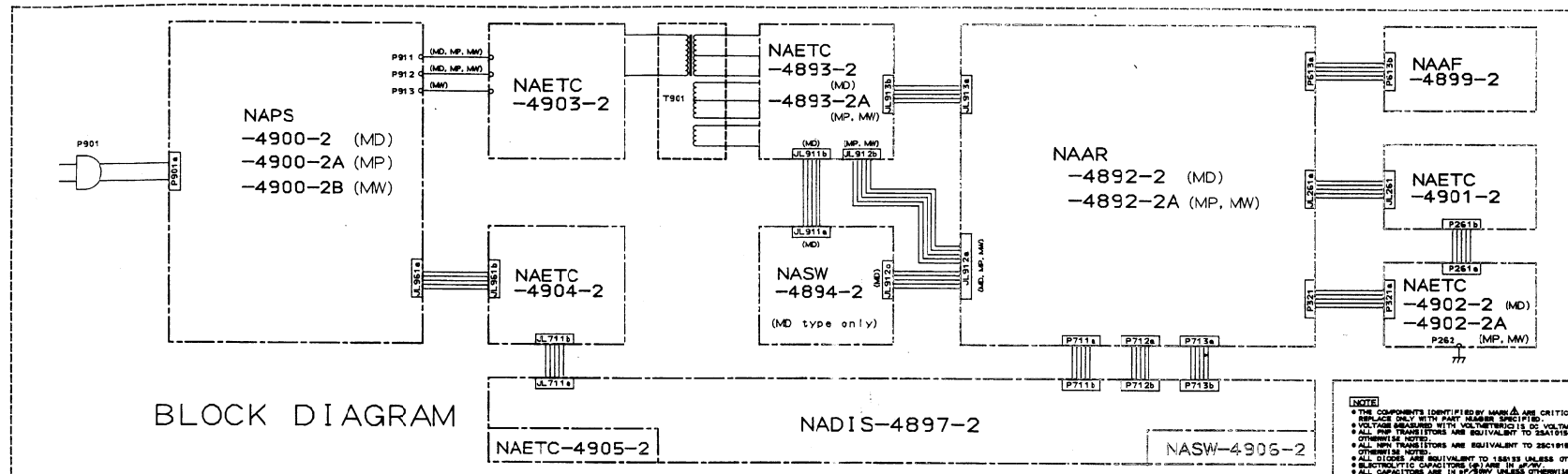
## LOUDNESS SWITCH PC BOARD(NASW-4906-2)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Switch	
S714	25035652	NPS-111-S604

# BLOCK DIAGRAM

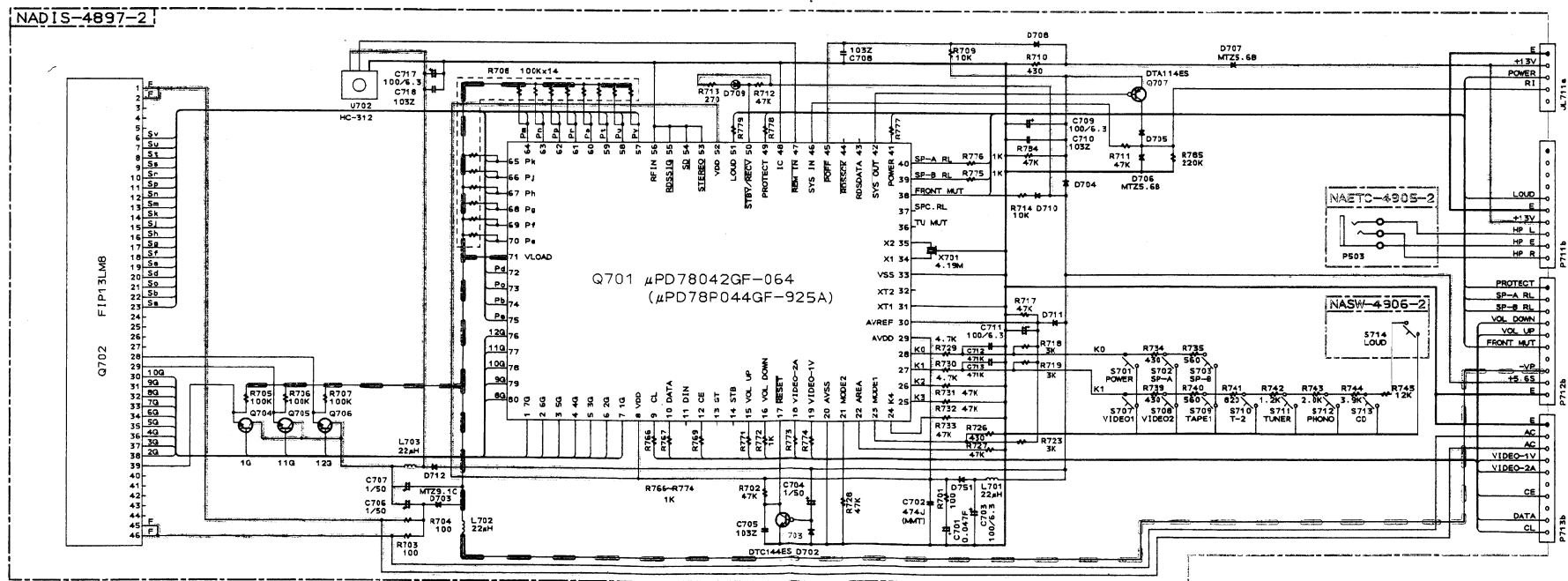


# SCHEMATIC DIAGRAM

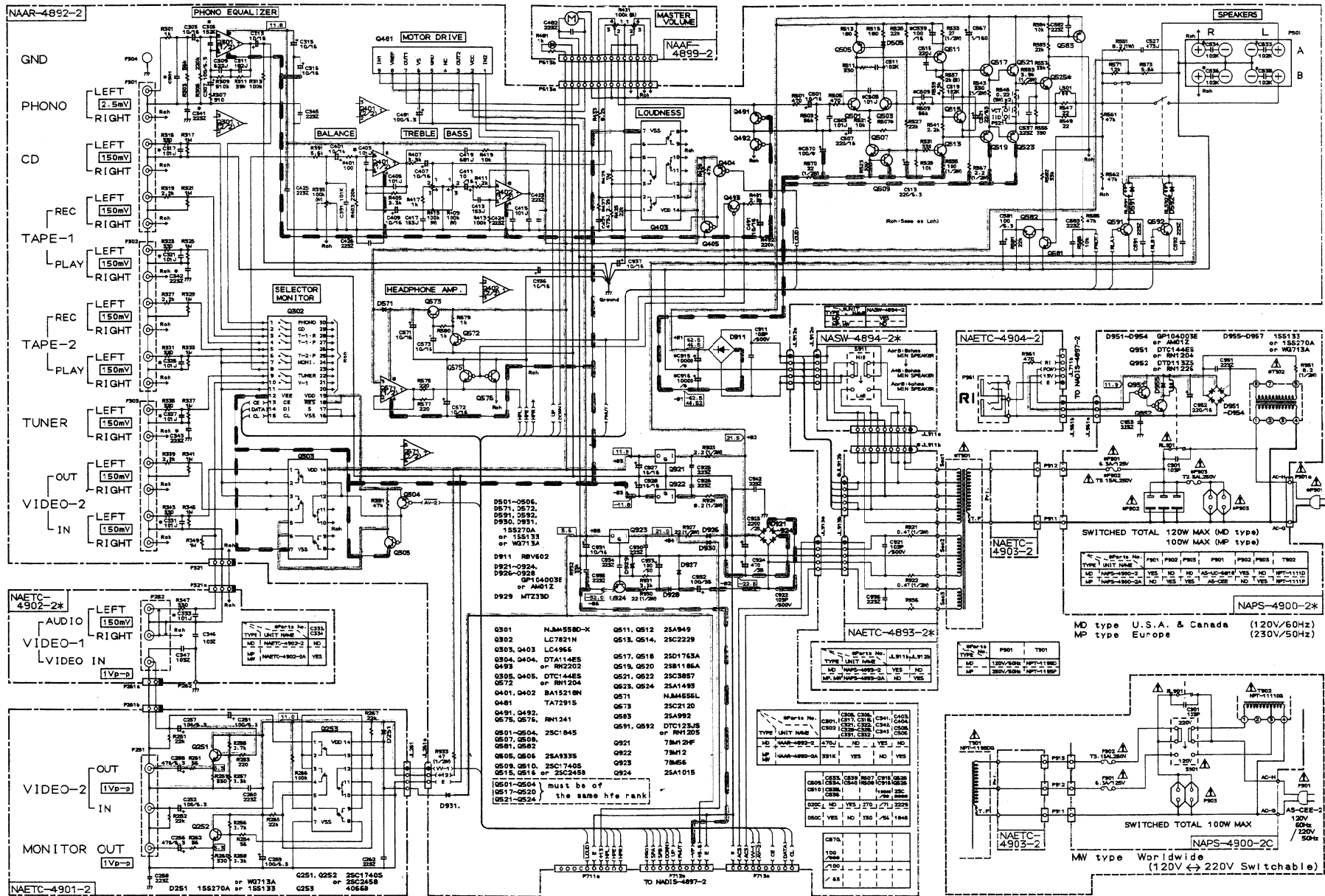


**NOTE:**

- 1. THE COMPONENTS IDENTIFIED BY MARKS ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
- 2. VOLTAGE MEASUREMENTS WITH VOLTMETER/OSCILLOSCOPE (VOLTAGE INPUT SIGNAL).
- 3. ALL PNP TRANSISTORS ARE EQUIVALENT TO 2N4101-OR UNLESS OTHERWISE NOTED.
- 4. ALL PNP TRANSISTORS ARE EQUIVALENT TO 2N4101-OR UNLESS OTHERWISE NOTED.
- 5. ALL CAPACITORS ARE IN PPF UNLESS OTHERWISE NOTED.
- 6. ELECTROLYTIC CAPACITORS (E-L) ARE IN PPF UNLESS OTHERWISE NOTED.
- 7. ALL RESISTORS ARE IN OHMS UNLESS OTHERWISE NOTED.
- 8. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.
- 9. THE TOLL LINES IN THIS BOARD ARE THE PRINTING SIDE OF THE PARTS.
- 10. SCHEMATIC IS SUBJECT TO CHANGE FOR IMPROVEMENT.



# SCHEMATIC DIAGRAM



ONKYO CORPORATION